

MEDICINE.

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THE SENILE FORM OF MULTIPLE NEURITIS.

AFTER pointing out the dearth of recorded observations on the subject, and referring to original investigations made in conjunction with Siemerling (*Beiträge zur Pathologie der Tabes dorsalis und der peripherischen Nervenlähmung*, *Westphal's Archiv*, Bd. xviii., Heft. 1 u. 2), disclosing the existence of degenerative changes in the peripheral nervous apparatus of old persons, OPPENHEIM (*Berliner klin. Wochenschr.*, No. 25, p. 589) reports the details of two cases of a senile form of multiple neuritis, and refers to four others under his observation. In these six persons (five males and one female), varying from seventy to eighty-two years of age, presenting evidences of arteriosclerosis, and emaciated in greater or less degree, there developed, with slowly progressive intensity, disturbances of motility and sensibility in the upper and lower extremities. The hands and feet were usually affected, and especially the fingers and toes. The affection was invariably insidious in onset. Pain was slight or entirely wanting, but paræsthesiæ, and especially itching, were complained of. There was no elevation of temperature. Objectively, in addition to a condition of general debility, there was found degenerative paresis in the distribution of a number of nerves of the upper and lower extremities. Particularly affected were the small muscles of the hand and in the lower extremities, the peroneal region, and also the tibialis posticus. The palsy was usually but partial. At times it was the more marked in the upper extremities, at other times in the lower; in one case only the lower were involved. The muscles and nerves in the affected regions were sensitive to pressure, but not markedly so. The knee-jerk was wanting in all cases. Sensibility was diminished, principally at the ends of the extremities; there was hyperæsthesia, not complete anæsthesia. The cerebral nerves were not involved. The sphincters also escaped involvement. There was no ataxia. There was slight tremor, which could reasonably be ascribed to the debility of the senile condition. The disease was chronic in course, and manifested a tendency to remission. In two cases almost complete restoration was attained; in a third, decided improvement; in one case aggravation resulted, and in the remainder there was no change. The following are considered to be the characteristics of the senile form of multiple neuritis: (1) The absence of the usual etiological influences—intoxication and infection; (2) the pronounced

chronicity of course; (3) the absence of the mildness of irritative sensory disturbance; (4) the incompleteness of motor and sensory impairment; (5) the freedom from involvement of the cerebral nerves.

ACUTE HEMORRHAGIC NEPHRITIS DUE TO BACILLI COLI COMMUNES.

JEANSELME (*Gaz. hebdom. de Méd. et de Chir.*, 1893, No. 24, p. 281) has reported the case of a nervous and anæmic woman, twenty-eight years old, who, without appreciable cause, was seized six days after the menstrual period with violent pain in the lumbar region, to which nausea and vomiting soon were added. The urine became diminished in amount, and was deeply blood-colored. The pain was increased by pressure in the lumbar region, especially upon the left side, and radiated to the hypochondria, while palpation induced nausea. The patient complained of violent headache and derangement of vision. The face was pale, the eyelids a little puffy. There was, however, no œdema of the lower extremities, the respiration was regular, and the intelligence was preserved. The tongue was heavily coated. The temperature was slightly elevated. The pulse was scarcely accelerated. The urine was passed with difficulty, and was of a brownish-black color, resembling black coffee. The patient was placed upon a diet exclusively of milk. The headache, the nausea, and the disturbance of vision soon disappeared. On the third day the dysuria was still pronounced, micturition, however, becoming more frequent. The oliguria persisted until the sixth day. The discoloration of the urine gradually grew less. The quantity of albumin present was never considerable; a trace remained until the thirty-seventh day of the illness. The urine was of acid reaction throughout. It contained hyaline and epithelial tube-casts, red blood-corpuscles and epithelial cells. Two months earlier the woman had had a precisely similar attack. In the diagnosis paroxysmal hemoglobinuria, malignant disease of the kidney, renal calculi, and ascending nephritis were all excluded. There was nothing indicative of enteric fever. The throat had presented no lesion. The stomach had for a long time been dilated. It was finally concluded that the renal lesion was of hematogenous origin, and bacteriological examination of the sediment deposited by the urine disclosed the presence of the bacterium coli communis.

CHOLERA.

AT the recent Congress for Internal Medicine, held at Wiesbaden, RUMPF (*Supplement to Centralbl. f. klin. Medizin*, 1893, No. 25, p. 2) announced the following conclusions at which he had arrived as the result of his experiences during the epidemic of cholera at Hamburg last year: The comma bacillus must be accepted as the etiologic factor of Asiatic cholera. The presence of the bacillus in the intestine does not, however, necessarily lead to the development of cholera or a cholera-like disease. The presence of comma bacilli in apparently healthy persons suggests that the bacilli may temporarily or permanently lose their virulence. As, however, in the course of an epidemic the same etiologic factor in one case leads to an attack of typical cholera, while in another living comma bacilli may pass through the body without disturbance of the general condition, it follows that for the development of

the disease certain accessory conditions are essential; these must be looked for rather in the individual disposition than in the circumstance of time and place. The last two may, however, influence the individual disposition secondarily. The individual disposition consists essentially in derangement of the digestion, which may result from the ingestion of unsuitable food or from the presence in the intestine of other disease-producing factors. In this connection the massed occurrence of cholera nostras and intestinal catarrh contemporarily with Asiatic cholera is noteworthy. Notwithstanding the presence of comma bacilli in the intestine, cultivation by plating methods may yield negative results for several days. The growth of comma bacilli obtained from the dejections is a variable one. A retardation followed in one instance as a result of therapeutic measures, especially in connection with the administration of calomel and enemata of soap water. A similar result was noted in isolated cases after the epidemic in which, with a condition of undisturbed health, comma bacilli were found in the dejecta. The comma bacilli act essentially by the generation of toxins, which act injuriously upon the intestinal epithelium and upon the kidneys, and exercise a paralyzant influence upon the circulation and the production of heat. The comma bacilli may remain in the intestinal tract of man in an active condition until the eighteenth day, and perhaps longer (on an average until the sixth day). This fact, together with the resultant chronic condition, may account for a portion of the secondary phenomena, and particularly for the comatose stage. There is as yet no specific treatment for cholera, although continued investigations in this direction are certainly warranted.

APYREXIAL TYPHOID FEVER.

DRESCHFELD (Manchester) records four cases of this nature (*Practitioner*, 1893, No. 298). Excepting pyrexia, the symptoms presented scarcely admitted any doubt of the cases being typhoid. There were persistent diarrhœa and hemorrhage, with enlargement of the spleen and roseolar eruption in two cases, and a third ended fatally by perforation. There was a distinct relapse in two cases. "That they ran their course without any pyrexia may, I think, be equally maintained; for, though the temperature was not taken at the beginning of the attack, in two cases it was carefully observed during the relapse, and in all cases the temperature was taken at a stage of the disease when pyrexia is usually most marked, and often at its highest. Nor can the hemorrhage be looked upon as the cause of the apyrexia, for it was only noticed in two of the four cases. It was not very profuse, and only lasted a few days."

GERHARDT (*Charité Annalen*, 1891, p. 208) records seventeen cases, one of which, with relapse, he observed at Würzburg, and sixteen in Berlin. Of these, eight were females and eight males, between the ages of fourteen and forty-four. The onset of the disease in these cases was mostly very acute, commencing with headache, lassitude, vertigo, anorexia, vomiting, and diarrhœa. Insomnia was a prominent symptom in some of the cases. The diazo-reaction was found present in half the cases, and the urine had all the character of febrile urine. Roseola was present in thirteen cases, and en-

largement of the spleen was absent only in two. The loss of body-weight was but slight.

WENDLAND (*Centralbl. für klin. Med.*, 1892, p. 1103) describes two cases of apyrexial typhoid, with marked cerebral symptoms, both terminating fatally, one in the fifth, the other in the second week of the disease, and in both the autopsy confirmed the diagnosis.

DIET IN CHRONIC BRIGHT'S DISEASE.

At a recent meeting of the Royal Medical and Chirurgical Society, WHITE (London) presented the results of investigations made on the influence of various diets upon the composition of the urine and general condition of patients suffering from chronic Bright's disease.

The writer first refers to the opinions of many authors, and points out that they are by no means unanimous as to the best diet for patients with chronic Bright's disease. He next shows that all the *a priori* reasons which have been urged in favor of milk or any other particular diet are fallacious, and that consequently the only way to attack the problem is to carefully observe the condition of the urine and the condition of the patient upon different diets. It is very necessary not to draw deductions from too few cases. He has therefore taken ten cases of chronic Bright's disease in which the urine has been carefully analyzed every day for many weeks, so that altogether between four and five hundred analyses of it were made. In each case notes were kept also of the general condition of the patient. The following diets were tried: Milk, 3 pints a day, containing 1076 grains of proteid. Farinaceous, consisting of bread and milk, containing 1137 grains of proteid. Full diet, consisting of bread, butter, milk, meat, rice pudding, and containing 1522 grains of proteid. Sometimes the effect of adding fish, eggs, or more meat was tried. The following results were reached:

1. Quantity of urine. Usually more urine is secreted upon farinaceous or milk diets than upon full diet.
2. Specific gravity. The diet has no certain influence on this, but on the whole it is lower on milk and farinaceous diets than on full diet.
3. The quantity of albumin passed. The figures show that nearly always the albumin passed is more upon milk diet than upon farinaceous, and less upon full diet than upon either milk or farinaceous. Even in the rare instances in which the maximum quantity is passed upon full diet the excess of proteid in the full diet more than compensates for any extra loss of albumin, so that patients always best avoid loss of albumin by a full diet.
4. The quantity of urea passed. The influence of diet upon this is most uncertain; often less urea is passed upon full diet than upon farinaceous, and less upon farinaceous than upon milk. Sometimes the reverse is true.
5. General condition of the patient. The cases distinctly show that full diet is not more liable to lead to uræmia than any other; in fact, in one patient full diet appeared to ward off uræmia, and the patient ultimately recovered. The patients always felt and seemed much better and stronger on full diet, or on farinaceous diet with meat or eggs added, than on milk or farinaceous only. Many patients loath milk diet and greatly dislike farinaceous; on the other hand, they relish full diet.

The author therefore advises full diet, for it does not lead to uræmia, nor is it harmful in any way; but it saves albumin, the patients like it and improve on it in all respects, while they greatly dislike other diets. If the diuretic effect of milk is desired, plenty of water can be drunk.

QUAIN protested against the indiscriminate use of milk in albuminuria, and recommended the use of mercury in some form or other.

MAGUIRE agreed that the amount of albumin passed was not, *per se*, of any great importance, except in as far as it indicated the extent of the general disease. In the treatment of Bright's disease it was more important to consider the patient's general condition than to concentrate one's attention on the condition of the urine. The condition of the circulation ought to be carefully noted. Provided that were done, he thought the choice of diet might be somewhat modified at the different stages of the disease. There was, for instance, an early stage of granular kidney, or rather a stage which would develop into granular kidney if left to its course—a condition to which Dr. Broadbent had called attention years ago, characterized by a high tension pulse, labored heart-beat, and albuminuria. It would be a mistake in such cases to give the patient *carte blanche* in the matter of diet. In the middle period, a period at which the patient seldom came to the hospital, because he might still be unaware that he was the subject of any serious disease, with high arterial tension and a heart capable of dealing with it—in this stage it behooved the physician to be careful in respect of a full diet. In the later varieties, where the patient was suffering from the effects of the continued high tension, a full diet might be of the greatest benefit in order to enable the heart to cope with its difficulties. Then, too, mercury might be given with advantage to counteract the possible ill effects of the full diet.

BROADBENT thought that the general treatment of chronic Bright's disease ought to be guided mainly by the tension of the pulse and the condition of the heart. He had satisfied himself that uræmia was not due to the presence in the blood of urea or of any specific toxins. It was simply a question of the balance of circulation. It was when the resistance at the periphery overmastered the heart, when they got stasis of the cerebral capillaries, that symptoms of uræmia presented themselves. Considerations of that kind explained what had been illustrated by several of the author's cases, that the remedy for threatened uræmia was not starvation or milk diet, but to diminish the resistance at the periphery, and to increase the vigor of the heart's action, with which object in view a more liberal and a more highly nitrogenous diet was of the greatest possible importance. The question of the influence of diet on the excretion of urea was one of the greatest interest. In all these questions further investigation was necessary, special attention being paid to the character of the motions. He confirmed what Sir Richard Quain had said about the benefit derived from occasional doses of calomel. It increased the hepatic and intestinal functions in a way that no other aperient would do, and it had an effect of its own on arterial tension.

BACTERIOLOGY AND IMPROVED STORAGE OF VACCINE LYMPH.

COPEMAN (London) publishes an interesting contribution to this subject in the *British Medical Journal* (1893, No. 1634). The writer refers to papers

by himself and Dr. Crookshank in the transactions of the Bacteriological Section of the International Congress of Hygiene, London, 1891. To no one of the several bacteria (extraneous) grown in nutrient media from vaccine lymph can be assigned the rôle of vaccine virus. "I have shown, however, that there are three species of micro-organisms, one or all of which are almost universally to be found in every specimen of vaccine lymph examined, of which one—the *staphylococcus albus*—is usually to be found in the upper layers of healthy skin. Of more importance is the fact that in certain cases, though rarely, I have been able to satisfy myself as to the presence of the *streptococcus pyogenes*; and, moreover, it is on record, in certainly one instance at least, that the *streptococcus* of erysipelas has also been isolated from a specimen from vaccine lymph. That untoward results should occasionally, and in certain cases, follow the inoculation during the act of vaccination of one or other of the various 'extraneous' organisms which may be present in the lymph employed is not to be wondered at."

This portion of the problem would be solved if it were possible to isolate the contagion of vaccina (or variola), and to carry on without loss of specificity pure cultures of it in some nutrient media from generation to generation.

From former experiments the writer arrived at the conclusion that the opacity of old stored lymph was in all probability due to the multiplication of the extraneous bacteria; and believing that this activity might, among other effects, inhibit the development of the yet undiscovered organism of vaccine, he directs his attention to the discovery of some method of storing lymph which would prevent this.

"Without detailing the various experiments which were carried out with this object in view, a full account of which I have already published, it is necessary in this place to state briefly the lines on which the work was carried out. In the first place, I made trial of the method of fractional heating, which had, in the hands of Kitasato, met with such brilliant success in the isolation of the bacillus of tetanus. Proceeding in this manner, and in every experiment observing the precaution of making control cultures, I presently arrived at a temperature, exposure to which is apparently incompatible with the continued existence of those micro-organisms which can ordinarily be grown when vaccine lymph is inoculated into nutrient jelly. The required temperature ranged between 38° C. and 42° C.; but whereas, after exposure for an hour at the lower register, a few points of growth are occasionally seen in plate cultivation after the lapse of a day or so, while the higher temperature sometimes appeared to exert an injurious effect on the lymph, as far as regards the normal vesiculation which should result from its inoculation in the living animal, I sought for some method of readier application and requiring less delicate manipulation. This I at length found in the admixture with the lymph of a certain proportion of (75 per cent.) glycerin in distilled and sterilized water prior to storage in capillary tubes, which latter also had been sterilized by heat." Müller showed years ago that the addition of such a mixture did not impair the properties of lymph. Dilution in this way has the additional advantage that the mixture does not dry up readily.

"Experiment shows also that in tubes filled with such diluted lymph opacity does not apparently result. As I have previously stated—an observation, by the way, for which I may fairly claim priority—the glycerin

inhibits the growth of, and after a longer or shorter interval kills off altogether, those aerobic bacteria which I have termed 'extraneous.'

"With the assistance of Dr. Corbett, I have also carried out a series of glycerin experiments on a larger scale, not only with the organisms which can be grown from vaccine lymph, but also with numerous other species of bacteria, both pathogenic and saprophytic, in nature. The details of these experiments we shall hope to publish shortly. I will here merely state that the net outcome of our work appears to show that while some pathogenic organisms remain active in admixtures of broth and glycerin, or even in pure glycerin for longer or shorter periods, other pathogenic, and as far as our experiments go, all saprophytic organisms are killed out in from three or four days to as many weeks."

The article concludes with a reference to the paper on a similar subject published by Dr. Achille Sclavo, of Rome, in which this observer independently confirms the writer's views with regard to the mixture of glycerin to vaccine lymph.

SURGERY.

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PYLOROPLASTY FOR NON-MALIGNANT STENOSIS OF THE PYLORUS.

GOULD describes (*The Lancet*, 1893, vol. i., No. 20) the case of a woman aged fifty-eight years, who for more than twenty years had suffered severely from dyspepsia. She had one severe attack of peritonitis, involving the upper abdominal zone. Although very hungry, she was able to eat but very little. All kinds of fluid made her sick. There were frequent attacks of vomiting, when large quantities of undigested food would be rejected. The stomach was much dilated; the bowels were constipated. The patient was wasted to an extreme degree. No tumor was to be felt in the abdomen. Lavage and rectal feeding had not afforded relief. The symptoms were thought to be due to non-malignant stricture of the pylorus, or to pressure from adhesions.

An exploratory laparotomy was performed, and an incision made into the stomach. The pylorus was examined with the little finger and found to be contracted to the size of a goose-quill. The incision was then prolonged through the pylorus and into the duodenum, until it measured two inches or